



Threats to the integrity of psychological assessment: The misuse of test raw data and materials

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ABSTRACT

In the practice of psychological assessment there have been warnings for decades by the American Psychological Association (APA), the National Academy of Neuropsychology (NAN), other associations, and test vendors, against the disclosure of test raw data and test materials. Psychological assessment occurs across several different practice environments, and test raw data is a particularly sensitive aspect of practice considering what it implicitly represents about a client/patient, and this concept is further developed in this paper. Many times, test materials are intellectual property protected by copyrights and user agreements. It follows that improper management of the release of test raw data and test materials threatens the scientific integrity of psychological assessment. Here the matters of test raw data, test materials, and different practice environments are addressed to highlight the challenges involved with improper releases and to offer guidance concerning good-faith efforts to preserve the integrity of psychological assessment and legal agreements. The unique demands of forensic practice are also discussed, including attorneys' needs for cross-examination and discovery, which may place psychologists (and other duly vetted evaluators) in conflict with their commitment to professional ethical codes and legal agreements. To this end, important threats to the proper use of test raw data and test materials include uninformed professionals and compromised evaluators. In this paper, the mishandling of test raw data and materials by both psychologists and other evaluators is reviewed, representative case examples, including those from the literature, are provided, pertinent case law is discussed, and practical stepwise conflict resolutions are offered.

KEYWORDS

Ethics; evaluator; laws; psychological assessment; public policy; raw data; test materials

For many decades evaluators have wrestled with the improper release of test raw data and materials that impacts the integrity of psychological assessments (American Psychological Association [APA], 1953; Brodzinsky, 1993; Keith-Spiegel & Koocher, 1985; Otto et al., 2000). One of the concerns is also the preservation of client/patient rights across contexts and environments. Knowledgeable access precludes misinterpretation of findings, test raw data, and test materials by laypersons, who rarely have the requisite training, supervision, and experience necessary to meaningfully understand them. The ethics of test raw data release, the exigencies of copyright law, and the violation of user-vendor agreements for test materials are clearly meant to protect clients/patients. Our focus, however, is on conducting assessments; and on threats to the integrity of this practice, and not on the complexities of client/patient rights to access such specific materials, which are beyond the scope of this paper and require separate treatment.

The proper use of test raw data has been outlined by the American Psychological Association [APA] (2017) and the National Academy of Neuropsychology [NAN] (2000, 2003), and through other learned treatises. The APA's ethics code (2017) includes the following definition:

The term *test data*¹ refers to raw and scaled scores, client/patient responses to test questions or stimuli, and psychologists' notes and recordings concerning client/patient statements and behavior during an examination. Those portions of test materials that include client/patient responses are included in the definition of *test data*. (p. 13)

Often, test raw data collected are penned onto copyrighted forms, and these forms, and associated manuals, as well as computer generated outcomes, are considered *test materials*. Proper management of test materials is a separate matter from test raw data, and both were defined by NAN specifically (2000, 2003). In addition to using APA's description of test data, NAN defined test materials in their publication *Test Security: An Update* (2003):

According to Code 9.11:

Test materials "refers to manuals, instruments, protocols, and test questions or stimuli and does not include test data" (as defined above). (p. 1)

Given the work by NAN, we purposively use the term *test raw data* to clearly delineate it from *test data* or *raw data* because often the terms have contributed to confusion regarding what are *test materials*. Client/patient responses to queries generate Os, Is, As, Bs, and Cs, as well as narrative

responses, which are categorized as test raw data. Test materials tend to be a separate matter, and include protocols, standardized query booklets, computer-generated reports, and, in some cases, even the instrument and/or test² itself as well as the manual. Although rare by comparison to the bulk of tests used, there are tests such as verbal learning tests and visual recognition tests (Delis et al., 2017; Meyers & Meyers, 1995; Schmidt, 1996) in which test raw data and test materials are interwoven (Axelrod, 2014; Bush, 2018, pp. 127–129). But that does not hold in every case with verbal learning tests (Schmidt, 1996). We acknowledge that this is an important matter that requires attention and consistent treatment, envision that it may well be the focus of a separate work to align/justify practice guidelines and ethical standards (APA, 2017; NAN, 2000, 2003), and would even suggest the term *hybrid* as one term for designating these test raw data/materials. Despite its import, and the breadth of potential special implications for the field of psychological assessment, this matter is one, among many discussed, that meets at the crossroads of this paper's central focus. As such, these hybrid test raw data/materials will be discussed as a future area of focus in this paper's concluding remarks.

Test raw data and their proper use are anchored in the practice of replicating scientific experiments (Kerlinger, 1979). In basic terms, findings produced from test raw data should in practice, and in theory, be replicable across assessments by stripping away all but the test raw data itself (Attix, et al., 2007). That is, if the motivation for requesting the test raw data is based on the scientific endeavor alone. A reasonably good-faith effort to supply test raw data may be as simple as preparing a summary. Thus, it might be reported that on question number one, the answer was "1," on question number two the answer was "0," on question number three, "2," and on question six, "zebra." Such an approach supposes a collegial, good-faith exchange of test raw data. Accordingly, no copyrighted forms are produced, and appropriately trained, supervised, and experienced evaluators will be able to input these test raw data and produce identical results. *That is, the receiving evaluator will be able to replicate the findings from the original evaluator's work.*

The preservation of test materials, intellectual property, is a well-known legal matter (Kaufmann, 2009; Morel, 2009; NCS Pearson, Inc., 2021; Psychological Assessment Resources, Inc., [PAR, Inc.], 2020). Releasing proprietary test material is subject to specific user agreements and prohibitions, such as, for example, the *Q-global® Subscription and License Agreement* (see Appendix A).³ Historical state and federal court decisions have established legal precedents regarding test raw data and test materials. At this writing fourteen years have passed since Kaufmann (2009) and Morel (2009) made many cogent arguments about the proper management of test raw data and test materials in the literature of the neuropsychological community. Yet,

many of these problems persist to this day. This holds not only in neuropsychology, but in the wider field of psychological assessment, and there has been minimal progress in the practice of law on these matters (Morel, 2009, pp. 642–643, Tables 1 and 2). In fact, later we note that these challenges are growing ever more present in forensic neuropsychological practice. Academic, clinical, neuropsychological, and forensic contexts/environments serve as differing examples of the practice of psychological assessment as a discipline, and this breadth speaks to the potential scope of these problems to one degree or another.

The use of psychological assessment has been repeatedly clarified and supported as an important scientific tool in the behavioral sciences through seminal articles (Meyer et al., 1998; 2001), and the discipline's utility and validity are founded, truly anchored on the integrity of the test raw data and the preservation of test materials. These matters have been addressed in one difficult debate after another in response to further intrusions into this scientific enterprise as demonstrated by the changes in the APA's 2002 *Ethical standards and code of conduct* and the work of NAN (Erard, 2004; NAN, 2003; Rogers 2004). Even so, the struggle has continued (Ackerman, 2010; Kaufmann, 2009; Morel, 2009). On one front, such problems may have been spurred in recent years by cases involving uninformed professionals practicing psychological assessment. As but one example, in the laws of Montana there is no vetting process for certain masters-level practitioners (e.g., Administrative Rule of Montana § 24.219.1003 (5)⁴).

(5) A licensed clinical professional counselor or licensed clinical social worker is qualified to perform psychological assessments and is *not required to demonstrate that the licensee has met the qualifications set forth*⁵ in (1) if the licensee performed psychological assessments prior to December 25, 2015.

That is, if masters-level providers claim they were performing psychological assessments prior to December 25, 2015, there is no review, whatsoever, of their capacity to competently perform the tasks involved. Setting aside the example of Montana, each state has its own unique laws and rules on these matters, which range from conflicting and idiosyncratic to consistent and logical when it comes to interpret matters surrounding access to conducting psychological assessments by professions outside of psychology. California, for example, had an Attorney General's Opinion from 1984 about Licensed Marriage and Family Therapists that stated (67 Ops. Cal.Atty.Gen. 278):

Marriage, family and child counselors have the statutory authority to construct, administer and interpret "psychological

²Throughout the psychological assessment literature, the terms *instrument* and *test* are often used interchangeably in the balance of this paper *test* will be used for clarity and simplicity.

³See: <https://www.pearsonassessments.com/content/dam/school/global/clinical/us/assets/q-global/Q-global-License-Agreement.pdf>

⁴Parenthetically, there will be several representative samples of the challenges described in this paper from Montana's laws, largely because two out of four authors live and work there. Thus, the phrase often attributed to Mark Twain, 'Write what you know'. It is also for the fact that addressing each jurisdiction's laws are well beyond the scope of this paper and would require a paper, perhaps several, to address such matters. Even so, several other examples will be offered. For Administrative Rule of Montana § 24.219.1003 (5) see: [https://rules.mt.gov/gateway/RuleNo.asp?RN=24%2E219%2E1003#:~:text=24.219.,of%20the%20State%20of%20Montana&text=\(b\)%20a%20signed%20statement%20from,set%20forth%20in%20ARM%2024.219](https://rules.mt.gov/gateway/RuleNo.asp?RN=24%2E219%2E1003#:~:text=24.219.,of%20the%20State%20of%20Montana&text=(b)%20a%20signed%20statement%20from,set%20forth%20in%20ARM%2024.219)

⁵Italics added for emphasis.

tests” but to do so only within the course of their practice, when within their field or fields of competence as established by education, training, and experience, and when such could and would be used to examine an interpersonal relationship between spouses or members of a family for the purpose of achieving more adequate, satisfying and productive marriage and family adjustments.

Also, see the opinion from 2020 that carries these matters forward (Griffin, 2020). We note that in this example, the requisites of “education, training, and experience” exist, and that there may be a limited application to interpersonal relationships which differs from what has been described in Montana. As another example, under Florida Statutes Title XXXII, Ch. 491.003, §§ (8) (c), (9) (c), and (10) (c), the same recitation is made for counselors, marriage and family therapists, and social workers:

In addition, this definition may not be construed to permit any person licensed, provisionally licensed, registered, or certified pursuant to this chapter to describe or label any test, report, or procedure as “psychological,” except to relate specifically to the definition of practice authorized in this subsection.

However, in the same chapter, this recitation is made for all three licensees (Id., (8), (9), & (10)): “The practice of clinical social work includes methods of a psychological nature used to evaluate, assess, diagnose, treat, and prevent emotional and mental disorders and dysfunctions.” Some interpret this to mean that these licensees are not only allowed to conduct psychological assessments, but also forensic psychological assessments (National Board of Forensic Examiners [NBF], 2022 (see Appendix B)). In Nevada, there was not equivocal language addressing the practices of Clinical Professional Counselors and Marriage and Family Therapist, and its language was fairly straightforward with identical language (under Nevada Revised Statute (NRS) § 641 A.065 (3) and § 641 A.080 (3)):

The term [practice of] does not include the use of psychometric tests, assessments or measures, including, without limitation, psychological, neuropsychological, developmental, neurodevelopmental, cognitive, neurocognitive, intelligence, achievement, personality or projective tests.

Then, there is Wyoming, wherein Licensed Addictions Therapists, Licensed Clinical Social Workers, Licensed Marriage and Family Therapists and Licensed Professional Counselors are allowed to perform appraisal, which appears to be synonymous with assessment, evaluation or testing per the following (Wyoming Statutes Annotated (WSA) § 33-38-102 (a)):

(ii) “Mental health procedures” means engaging in methods and techniques which include, but are not restricted to . . .

(B) “Appraisal” means selecting, administering, scoring and interpreting instruments designed to assess an individual’s attitudes, abilities, achievements, interests and personal characteristics and the use of methods and techniques for understanding human behavior in relation to coping with, adapting to, or changing life situations;

With these laws, as written, there is no review such as the one described in California to ensure appropriate “education, training and experience” in appraisal (WSA § 33-38-106), and it should be noted that one of the professionals licensed

under these statutes requires just a bachelor’s degree to satisfy application requirements (WSA § 33-38-106 (c) (iii)). In Arizona the applicable statutes governing the behavioral health professions are ambiguous, in that they provide for assessment, appraisal and diagnosis of patients, but without specific reference to how this is to be done. There is nothing in the applicable statutes or regulations that allows for or precludes the administration or interpretation of psychological tests. See Arizona Revised Statutes, Title 32, § 3251 (9) (a), 10 (e), (11) (c), and 12 (a) and Arizona Administrative Code (Ariz. Admin. Code.), Title 4, Chapter 6, Article 11, Standards of Practice. Even with these examples as they are, practically it is well beyond the scope of this article to delineate all the different and often idiosyncratic ways in which states, in the United States, address who may administer and interpret psychological tests across the multiple contexts they are used or could be used for assessment. Our point here is simply that there are variations in authority and restrictions across the states, sometimes well-defined and other times unclear and debatable. An integrated set of rules and regulations would be preferred from a professional practice standpoint, to achieve some measure of uniformity and maximize competent and ethical practice, but the long-standing tradition of according power over health matters to the states is a major and likely impediment to having an integrated set of rules in this country.

On another front, there are challenges that arise in forensic practice when the boundaries between science and psycho-legal matters become blurred, a matter that has been articulated by Kaufmann (2009) and by Morel (2009). While concerns about preservation of the integrity of test raw data and materials pertain to each of the contexts previously touched on, both the demand for them, and the consequences of relinquishing these, are most intense in the crucible of the forensic environment. Attorneys regularly prevail in their motions, which may compromise test raw data, test materials, as well as test security. There are court rulings that tend to unapologetically set aside legal arguments on longstanding positions and legal precedents. Such ethical and legal matters have been addressed by the APA (2017), the NAN (2003, 2000), and test vendors through user agreements (NCS Pearson, Inc., 2021; PAR, Inc., 2020), and courts should not lightly disregard these authorities. While it may appear that demands for test raw data and test materials meet reasonable legal requirements, these concessions put ethical professionals in a difficult bind (Borkosky, 2014; Mathews & Pratt, 2016; Mayo et al., 2019; Morel, 2009; Vanderpool, 2014); especially those whose approach is scientific and serve as good stewards of the legacy of psychological assessment. These scientists face the longstanding ethical obligation of protecting the integrity of psychological assessment while responding to the demand for production in forensic practice.

When courts rule to allow the release of test raw data and test materials with no protections in place, they set into motion ethical and legal exposures for the evaluators involved. For example, the release of test raw data and materials may violate not only ethical standards, but also federal

and state statutes including contract law as it pertains to nondisclosure agreements that are part of the end-user agreement with the test manufacturer, e.g., *Harcourt Legal Policy*, 2004.⁶ Morel plainly stated (2009): “Attorneys whose actions diminish test security may violate copyright and trade secret laws. Test publishers, such as Pearson consider its secured tests to be trade secrets.” (p. 641). The salient point is that professional prohibitions for the evaluator, as well as legal prohibitions, *preserve a test’s value*, which stems mostly from the fact that evaluators know the questions, methods, scoring, and interpretation in advance, and, examinees do not. Placed in such legal binds, evaluators are exposed to sanctions that may range from violating professional ethics and a board complaint, to a failure to comply with some “end-user agreement.” The latter may result in losing the privilege of using a range of psychological tests supplied by a vendor, and include other matters broached above that encompass violating state and federal laws.

All aspects of the assessment process and the interpretation of the test raw data are at issue in the forensic context, and many attorneys for the respective parties tend to aggressively pursue their respective advocacy positions. Further, the mode of resolving disputed issues in the forensic setting is inherently adversarial and often plays out through the process of cross-examination. An attorney may well seek not only test raw data and test materials, but by extension the tests themselves. Attorneys may expressly or implicitly claim the need for these data and materials so that they can draw on the content to explore the integrity and the appropriateness of the psychological assessment. Appropriateness, may include, for example, the choice of tests, the administration, and scoring of tests, as well as the choice and use of normative data, including ultimately the interpretation of results.

From a darker perspective, unethical and unscrupulous professionals may be able to compromise or deter good-faith efforts to protect test raw data and test materials in the forensic setting. Attempts made to undermine good-faith processes tend to take the form of both subtle and more overt violations of the use of standardized procedures, or, more directly, involve such practices as coaching client/patients about how to respond to questions presented on a specific test (Morel, 2009; Spengler et al., 2020; Suhr & Gunstad, 2007; Victor & Abeles, 2004; Youngjohn, 1995). These are but two examples. Clearly licensing boards, ethical rules governing the legal profession, and criminal laws that deal with perpetrating fraud on the courts are available for recourse. The capacity for redress in the absence of good faith or due diligence, however, requires mechanisms for identifying instances of misconduct and reporting them to the appropriate authorities. In addition, some professionals disregard conventions or rules for conducting psychological assessments and working within the bounds of applicable ethical principles, standards and legal considerations.

What then, can evaluators do in these differing assessment environments, as they try to protect test raw data, test

materials, and the integrity of the discipline? We propose a stepwise process to meet increasingly more conflicted demands. Both Kaufmann and Morel’s work in 2009 raised many important matters, and their observations and suggestions will be woven into our own across this article. Progressive measures will be offered that consider these difficult circumstances for evaluators, beginning with documents created to manage such matters, the process of informed consent, identification of problematic professionals, motion practices (Greiffenstein & Cohen, 2005; Kaufmann, 2009; Morel, 2009), and crafting proactive sound protective orders. In the following section, we describe the inherent problems evaluators encounter in protecting test raw data and test materials, and primarily the integrity of psychological assessment.

Contexts/environments, professionals, and evaluators

Psychological assessment is conducted in different contexts/environments, and for general purposes we have contemplated academic, clinical, neuropsychological, and forensic assessment as touchpoints. Each context for practice differs, both in the kind of scientific collegiality expected and in the work’s complexity. Largely in academic or clinical contexts, evaluators act as colleagues to meet the needs of the client/patient/student. Differences may be expected among evaluators, and still we would argue such differences are often addressed with collegial correspondence or a request for test raw data to clarify a finding. It is a rare circumstance for test materials, or the test itself, to be requested by another evaluator. In fact, collectively we have never heard of, nor experienced, it being done in this environment.

The potential for contention, ethical, or legal rifts in the academic-clinical environment tends to be minimal, that is, if we set aside two potential problems in the field: the *uninformed professional* and the *compromised evaluator*. These individuals present a threat to the integrity of the discipline of psychological assessment itself, to one degree or another regardless of the context or practice environment. We argue that *uninformed professionals* practice assessment without having acquired the necessary basic training, supervision, and experience to begin with, or they lack the additional background and skills necessary to work within a particular context, environment, or more demanding tier of the practice. See for example, Montana’s law, as described earlier, that provides no vetting process. *Compromised evaluators*, in contrast, possess all the requisite training, supervision, and experience, but have conducted their work in a fashion that does not reflect ethical conduct or the law, or perhaps they have allowed themselves to be swayed by an overly zealous attorney.

Those who have not been trained in the essentials of science, not to mention the practice of psychological assessment, may be *uninformed* about the fundamental principle of replicability implied by the exchange of test raw data, for example. These professionals may well be unfamiliar with the conventions for test raw data and the laws that protect test materials. The prospect of uninformed professionals being granted access to tests may well be an artifact of increasing demands to conduct psychological assessments by

⁶See: <https://www.harcourt.co/wp-content/uploads/2021/08/Harcourt-Standard-Terms-and-Conditions-of-Sale.pdf>

those untrained in the science (Administrative Rule of Montana § 24.219.1003 (5); Watson and Sheperis, 2010). The interdisciplinary Society for Personality Assessment (SPA) has supplied the *Standards for Education and Training in Psychological Assessment: Position of the Society for Personality Assessment* (Society for Personality Assessment [SPA], 2006). These Standards outline basic training, supervision, and experience necessary to engage in the fundamental practice of psychological assessment. In the academic context qualifications for school psychologists (National Association of School Psychologists [NCSPP], 2010), educational diagnosticians, and special education teachers tend to be defined, but many states also allow bachelor's level educators with limited training to administer psychological tests in a fashion akin to that of lower-level psychometricians (Axelrod et al., 2000). Psychometricians occupy a slightly different level of practice, and addressing these practices as well as those that involve evaluation technicians/student educational technicians⁷ lies beyond the scope of this paper (Barry, 1974; Malek-Ahmadi et al., 2012).

When public safety is involved, certification or licensure in some form is often required. This serves as a vetting process to ensure that the public is protected from those who would engage in a scientific endeavor. This holds true for many fields. A pharmacist is not legitimately hired by a hospital after completing a single introductory course in chemistry; similarly, a pilot licensed to fly only gliders would not be hired to pilot commercial aircraft with an engine. While concerns regarding academic and clinical practice tend to hold true for neuropsychology, there has been increased demand for these services in forensics. A substantial number of these assessments are requested, nearly double the forensic involvement twenty years ago (Essig et al., 2001; Serafim et al., 2015). Prior to approximately 2000, conducting neuropsychological assessment entailed years of training, supervision, and experience beyond basic training in psychological assessment. Since then, a more formalized process described as the Houston Model had evolved (Division 40 of the American Psychological Association, 1989; Rey-Casserly et al., 2012; Sweet et al., 2000), and more recently there has been the Minnesota Conference (Puentes et al., 2023). Forensic assessment also involves significant further training, supervision, and experience beyond basic training, and it involves psycho-legal processes and a specific assessment focus (APA, 2013; Heilbrun, 1992). While ideally collegiality may be enjoyed between evaluators in any environment, the adversarial nature of the forensic process has the potential to create disagreements and tensions. Further, as discussed, increased demands for disclosure may, at times, be problematic.

Ethical evaluators working in the forensic context may wish to obtain test raw data and run their own analysis to verify the scientific integrity of a colleague's work. Similarly, most practicing attorneys do not request copywritten material and rely on expert evaluators' analysis of test raw data. Still, the prospect of uninformed professionals working with

attorneys presents a psycho-legal problem. That is, how to deal with releasing test raw data and, when required, test materials, to those who have a high probability of misinterpreting and misunderstanding it? Compromised evaluators, on the other hand, intentionally misuse their knowledge to one extent or another and may potentially weaponize test raw data and test materials in their work with attorneys. We have encountered compromised evaluators and attorneys who demand not only test raw data, but also copywritten materials, such as scoring protocols, computer-generated reports, and even the tests themselves. These compromised evaluators in league with certain attorneys knowingly strain and/or violate accepted professional conventions and laws when they attempt to misuse or misrepresent test raw data and/or test materials. Such evaluators confound and conflate the definition of test raw data with test materials in statements like this one that came from a demand letter in an actual case:

The term "raw data" is generally understood to mean true and accurate xerox copies of all test forms, scored tests, or computer generated scores and computer generated test interpretations.

Going back to earlier statements made by APA (2017) and NAN (2003, 2000), in most cases test raw data and test materials are not the same. Even so, these compromised evaluators chose to misuse them for legal, not scientific, purposes. This misuse includes copyright violations that occur with the demand for disclosure of test materials. In essence, by employing such practices, compromised evaluators abuse and distort the intended use of test raw data and materials in the legal forum such that they no longer serve science and, in turn, supply legal fodder for argument by attorneys (though some attorneys may be unaware of their tactics and the known practices in the field). While some professionals are simply uninformed, compromised evaluators know better.

Unfortunately, neither situation, being uninformed about, nor compromising science for personal gain, is new. Both have occurred across the vast majority of scientific disciplines (Gastil, 1971; Greenberg, 2008; Holt, 2016; Lewis, 2014; Pennypacker, 1986). But, given the subtle nature of psychological assessment, attorneys and judges working with such professionals and evaluators may neither recognize, nor understand, that a professional is uninformed, or, that an evaluator knowingly encourages transgressing basic, and well established, ethical and scientific principles. Such behavior is, however, obvious to well-trained and seasoned ethical evaluators. Thus, detailed and complex scientific arguments about protecting scientific integrity may run the risk of confusing attorneys and judges. To bring this matter into focus, one may ask these professionals: *Would it be reasonable for the contents of law school admissions tests or the bar exam to be known and discoverable?* Test security applies not only to such exams, but also to psychological assessment (Morel, 2009). Perhaps attorneys and judges may be able to appreciate such an analogy to, "inherently understand test security" (Kaufmann, 2009, p. 1148). To summarize, disclosure problems arise from a series of issues:

- Unreasonable requests for test raw data, and,
- Questionable demands for test materials, and more troublesome matters.

⁷See: https://agency.governmentjobs.com/longbeachusd/job_bulletin.cfm?JobID=1144832

These problems raise the prospect of professionals practicing psychological assessments without the requisite training, supervision, and experience necessary for conducting basic work, not to mention more advanced and complex forms of assessment; and its misuse by knowledgeable professionals in the forensic environment by those who possess such training.

Statements made by, and examples of, correcting the work of uninformed professionals and compromised evaluators

Uninformed professionals and compromised evaluators tend to cloak their wrongdoings against the sanctity of test raw data, as well as copyright agreements regarding test materials, with indefensible statements asserting that other parties have engaged in misconduct or are practicing junk or pseudoscience. Therefore, they require such data and materials. Such statements require exorbitant attention, effort, and time to clarify, defend against, and most importantly to correct. Simple errors and mischaracterizations are likewise difficult to clarify and defend against. Two relatively brief examples from actual cases illustrate the practices of uninformed professionals on the one hand and compromised professionals on the other.

A case in which a subpoena duces tecum was issued by an opposing attorney required that an evaluator turn over an entire case file, including test raw data and test materials. The evaluator cited copyright law and user agreements through their own attorney to avoid turning over test raw data and test materials to a professional whose credentials had not been verified. In fact, later it became clear that the uninformed evaluator did not even possess the basic training suggested by the SPA (2006), no less advanced training for forensic practice. However, the evaluator was ordered to turn over the entire case file by the Court.

Several weeks later the opposing attorney, who had issued the subpoena, accused the evaluator of not turning over all of the case file, and, specifically, via an uninformed professional who was serving as this attorney's "expert consultant," stated that the "codetypes" for the Rorschach had not been surrendered... Days later the uninformed professional issued a report that was full of errors and misstatements about tests, test interpretation, the conventions of psychological assessment, and so on. Among those errors was the repeated co-mingled reference to the Rorschach and "codetypes." The use of the term *codetype* was not an error on the attorney's part, but rather reflected the quality of understanding that the uninformed professional possessed about the Rorschach.

To be clear, there are no codetypes derived from the Rorschach. Codetypes are used in reference to the MMPI-2, for example, whereas "scoring" is used across major references to the Rorschach (Exner, 1991, 1993; Exner & Colligan, 2001; Exner & Weiner, 1995) and with the Rorschach's comprehensive method, which was used in this case (Evans, 2016; Gacono, & Evans, 2008). Though, literally, over four dozen different "scorings" had been supplied in the release of test materials via the *Rorschach Interpretation Assistance Program's*TM (Exner & Weiner, 2008) computer-generated

interpretive report's sequence of scores the uninformed professional did not even recognize them. What became evident was that this professional did not understand, or realize, that over four-dozen typewritten responses to the Rorschach had been supplied, that is, the "test raw data." But, in truth their complaint was about "test materials," a supposed outcome where the data had already been interpreted and scored; and again, these outcomes had been provided in the interpretive report in a computer-generated table. The uninformed professional simply had no idea what they were looking at. This evaluator did not miss just one, or even two, "codetypes." This uninformed professional missed each of the over forty-eight different independent "scorings" that had been supplied. Still, the opposing attorney accused the original evaluator of disobeying the subpoena duces tecum and the Court's Order for the release of test raw data and test materials. Plainly, the opposing attorney had been misinformed about the original evaluator's compliance with the subpoena duces tecum and the Court's Order.

The level of uninformed practice described here is so obvious in the scoring and interpretation of the Rorschach that no other remarks by this "expert" consultant could be considered remotely credible. A great deal of effort had to be mounted by the evaluator to educate the Court and rebut this "expert consultant's" report, given that there were over a dozen tests administered across the assessment. Consider the dismay of the attorney and the Court when faced with these realities; first, their lack of information about the uninformed professional's level of competence, and second, the revelation that the uninformed professional did not possess even an elemental level of competence.

A second real-world example pertains to the Vineland Adaptive Behavior Scales – Third Edition (Vineland-3), and this involved completely false and misleading statements by what has been described as a compromised evaluator. The following was stated: "The Vineland is a measure by which parents, teachers or caregivers rate the adaptive functions of individuals who have intellectual, developmental and other related disabilities." Hence, the compromised evaluator was pushing the notion that the Vineland-3 only applied to those with developmental disabilities. This was incorrect. On page one of the *Vineland Adaptive Behavior Scales-Third Edition*TM Manual (Sparrow, et al., 2016) it is explained that it is an, "individually administered measure of adaptive behavior," and applies to those: "with intellectual, developmental, *and other*⁸ disabilities." The compromised evaluator had stated that there were only normative tables for developmentally disabled groups. Normative samples from the Manual (p. 90) proved this statement inaccurate, since the samples included levels of educational attainment that those who suffer from an intellectual or developmental disability do not generally achieve such as college (see Appendix C).

The compromised evaluator's inaccurate statement about the applicability and scope of the test's use misled not only the attorneys who retained the evaluator's services, but the Court as well. Consider, on the one hand, the purposive

⁸Italics added for emphasis.

nature of the compromised evaluator's assertions, and then, on the other, that this was not the only such assertion in the case. Dozens and dozens of errant and misleading assertions required a sound educational response that informed the attorneys working with the compromised evaluator and the Court. Imagine if a jury had been involved in the case, and the numerous other challenges that might well have arisen.

The evaluators and professionals described in the paragraphs above confounded the scientific purposes of test raw data, and the differentiation of test material, through their uninformed practice and compromised actions. In fact, these behaviors tend to also encourage what is colloquially referred to as "fishing expeditions," under the auspices of discovery. However, when science is practiced honorably and in good faith, that is not the purpose of exchanging test raw data, and test materials are not requested. Other professionals should be aware of uninformed practitioners and compromised evaluators who not only step up to the edge of, but often go over the lines of ethical and legal practices.

Additional considerations involve the demand for copyrighted test manuals, forms, and other materials that only qualified evaluators are able to make use of, again, under user agreements. Uninformed professionals may not have the qualifications to even purchase the test materials being demanded. Demands for test materials may entail producing the copy-written form or protocol used for administration or scoring. Such requirements may also include computer-scored protocols or printouts with codetypes, scoring, and narratives intended for use only by those who have been properly trained. In fact, many such tests include copyright and trademark warnings, asking the evaluator to adhere to specific standards (see for example, NCS Pearson, Inc., and University of Minnesota, in Appendix D). Petitions for test materials may even include the tests themselves in their entirety, which would entail bracing licensing agreements should evaluators comply. Those who have compromised their practice may feign as though they do not have access to these materials, and the attorneys they are working for must have them for full disclosure. Such demands may include some materials that cost many thousands of dollars and are only sold to qualified users. Common sense dictates that if these are truly "expert" evaluators or professionals, then they should own their own version of the test. Moreover, following this logic they should also be able to input the test raw data into the test's scoring protocol and arrive at the same findings as the original evaluator. There may be other matters in play too, and while it may be true that using the same test raw data should lead to the same findings, we have also been involved in cases where compromised evaluators have gone so far as to alter the basic conditions of the test. These compromised evaluators have altered demographic variables that drive normative tables, and then entered the test raw data to arrive at different results. Thus, compromises to standardized administration may take many forms, from misrepresenting how a test is used and what population it is normed for, to changing a client/patient's basic conditions even though the test raw data was used, among other problematic unethical behaviors.

Math is math

In a scene from the movie *Incredibles 2* (Bird, 2018), Bob, better known as Mr. Incredible, is assisting his son with math homework and exclaims: "Math is math. Math is math!" Plainly the scene speaks to a new approach to solving basic mathematics equations. Similarly, although there may be any number of formulas or treatments for test raw data, test raw data are, nonetheless, *test raw data*! Consequently, science is science, and it does not matter if one is using a set of mathematical coordinates from which to launch an aircraft or the basic chemicals involved in preparing a pharmaceutical. Knowing the base information—information that is replicable—remains critical for arriving at the right destination or creating a particular pharmaceutical. Naturally, these initial conditions must be correct, and if they are incorrect any subsequent outcome will be flawed. For example, an aircraft could be off course by hundreds of miles, or a pharmaceutical that has been designed to be a preventative therapeutic may become toxic at the wrong dose.

In the context of psychological assessment, such base information should be well known to professionals, and thus a demand for test materials is not unlike asking for the entire CT or MRI machine, or perhaps, the proprietary computer software that runs these machines. To our knowledge, neither machines nor their programs have ever been surrendered in response to a request for the data they generate. Neurologists and other medical specialists relying on sophisticated imaging techniques frequently make referrals to neuropsychologists to obtain information about the subtleties of brain/behavior functioning that even highly advanced imaging cannot isolate. However, the imaging technology itself has never been viewed as part of a patient record, and with rare exception neither should test raw data be mistaken for test materials. If, rather than accepting a test that has been admitted a priori as meeting the Daubert Standard (*Daubert v. Merrill Dow Chemical*, 1993), attorneys argue that they want to examine the machinery itself, they confound the established notion of scientific validity previously accepted under this Standard (see Appendix E). While attorneys may seek to obtain or even dismember psychological tests measuring academic, cognitive, emotional, interpersonal, or neuropsychological functioning in the pursuit of a particular legal outcome, we suggest clarity about what is being requested.

Test raw data represents the essence of who a person is in a quantifiable form at a particular moment in time. Certain raw test data represent essential truths about the client/patient, for example, a personality variable, an emotional construct or a neurocognitive ability. Properly collected, and reviewed, it is representative of who that person is at that moment in time and how they have responded to the particular demands of psychological tests and the assessment process. Admittedly, not every client/patient examined is completely forthcoming. In fact, such failings are expected due to defense mechanisms, the desire to preserve one's own illusions about oneself, and as a product of outright malingering (Larrabee, 2012a, 2012b; Meyers et al., 2011; Rogers & Bender, 2020; Sellbom et al., 2010; Tombaugh, 1996). However, efforts to evade truthful and complete answers are measured in the test

raw data itself and may be discerned from the internal validity structure of a test, characteristics built into the test, performance validity and symptom validity tests, or from the ecological validity supplied by collateral information (Burgess et al., 2006; Dawson & Marcotte, 2017). Such validity measures serve to inform the evaluator's conceptualization of the client/patient's functioning. Regardless, these conceptualizations may be understood and reproduced by properly trained evaluators using test raw data and through the application of the science of psychological assessment. Again, math is math. Moreover, our use of the term "sanctity" has been purposeful. Evaluators hold a sacred trust, passed on to them by professors and supervisors earlier in their careers. Test raw data represents the essence of who a person is in a quantifiable form at a particular moment in time. It follows that convincing other professionals of the venerated, very private, and personal nature of this type of data is fundamental to its protection at all levels. In turn, other professionals ought to be encouraged to understand that this trust is not to be violated, and that there is a scientific sanctity to test raw data that requires protection by evaluators and other professionals.

Oversight failures, specialization, and advanced practice

As stated earlier, it is inadvisable to hire a person who has only completed an introductory course in chemistry *as a pharmacist*; nor is it prudent to hire a novice pilot who has only just obtained a glider pilot license *as a commercial pilot*. The expertise articulated by both examples takes years to accumulate. Unfortunately, the same kinds of professional differentiations, and certifications/licensure, do not hold uniformly in the practice of psychological assessment, despite the sanctity of the endeavor. Legislative and government officials in certain countries or provinces/states have been convinced that there is no, or a limited need for, a vetting process. This disregards the fact that even most psychological test vendors require base qualifications for the purchase of their products. As but one example we have Pearson Assessments' *Qualification's Policy* (see Appendix F).

The matters involved here are not so much a matter of fair access to the administration of tests (Watson & Sheperis, 2010), as they are failures to protect the public, seemingly fueled by those who would use such a coalitions like Fair Access Coalition on Testing (FACT) to gain access. Watson and Sheperis (2010), however, to their credit were clear about the need for basic requisites:

In their policy statement on test user qualifications, ACA [the American Counseling Association] asserts that the right to test should be based primarily on user competence obtained through education, training, and experience in the field of testing. (p. 2)

Unfortunately, that aspirational statement has not been the reality in Montana. For example, consider the Administrative Rules of Montana described earlier in this paper, where there is no assurance that a host of master's level practitioners or non-psychologists possess even basic skills to practice psychological assessments. For example, even just the most fundamental two semesters of graduate

training described by the SPA (2006) are not required for certain masters-level professionals. Parenthetically, this Society is an interdisciplinary body made up of, for example, masters-level evaluators, psychiatrists, and psychologists. Jurisdictions without proper vetting processes, including the lack of even the most basic training in psychological assessment, creates a dangerous and potentially harmful situation for those client/patients receiving psychological assessments. Fundamentally, if professionals have no basic training, supervision, or experience in psychological assessment, then how are they to gauge the sanctity of the process or its import for the lives of those served? That is, not to mention knowing how test raw data is collected, maintained, and properly released? This does not even take into account how test materials may be regarded. Given what appears to be a lack of understanding among some government officials, legislators, and these uninformed professionals, Montanans were fortunate that the Board of Psychologists chose to act and had the foresight to issue a Consumer Notice in 2013 after the aforementioned legislation had initially passed (see Appendix G). Allowing uninformed professionals to practice in Montana serves as but one example of how failures in governmental oversight may cause harm to consumers, despite the admirable efforts by the Board of Psychologists.

There are multiple levels of psychological assessment beyond the basic requirements discussed above, and these involve forensic, neuropsychological, and parenting plan assessments, among others. Competent practice requires years of additional training, supervision, and experience beyond graduate and post-graduate training for licensure as a psychologist. These assessments rely upon test raw data in an even more convoluted fashion, since in these fields' dissimulation and/or malingering are encountered more frequently (Rogers & Bender, 2020). Also, the import of collateral information often amplifies the need to check conformance between test raw data and ecological validity (Burgess, et al., 2006; Dawson & Marcotte, 2017). However, the basics involved with the management of test raw data abides regardless of attempts by uninformed professionals and compromised evaluators to confound these matters in psycho-legal contexts. Again, per Montana's regulations for licensed psychologists, those conducting parenting plan assessments are charged under the title of Collection and Use of Data to (Administrative Rule of Montana § 24.189.820 (1)⁹), "use generally accepted standards for the collection and use of data." Further, these "generally accepted standards" as well as others, specifically address, "releasing raw test results or raw data" in the Administrative Rules of Montana (see Appendix H). Arizona, California, Nevada and Wyoming (A.A.C. Title 4. Ch. 26. Article 3. R4-26-301.; State of California, 2017, p. 83; Nevada Administrative Code. Ch. 641. § R174-20; WY Code of Rules. 068.0001. Ch. 10. § 4 (o)) have incorporated the *Ethical Principles of Psychologists and Code of Conduct* from APA (2017), as standards of practice for psychologists. Florida Administrative Code makes explicit protections for "test data" with three conditions for release (Ch. 64B19-18.004 (3)).

⁹<https://rules.mt.gov/gateway/RuleNo.asp?RN=24%2E189%2E820>

A historical legal context: case law

Historical state and federal court decisions have established legal precedents that preserve several elements of psychological test security, which we note Kaufmann, and separately Morel, reviewed in 2009. In fact, in *Detroit Edison Co. v. National Labor Relations Board* (1979), industrial/organizational psychologists were ordered to release to the union test materials. That is, its standardized test questions, answers, and psychological aptitude tests (which were used in an employee selection program). The Supreme Court found that the National Labor Relations Board (NLRB), “abused its discretion.” (p. 316) This court also commented on the, “strong public policy against disclosure of ... tests” (p. 314). Other court decisions or precedents include *EEOC v. C & P Telephone Co.* (1993): “test secrecy is critical to the validity” (p. 876). As another example, in *Florida Department of Transportation v. Piccolo* (2007), “the US Supreme Court recognized the psychological profession’s legitimate interest in preserving the security of test materials” (p. 776). The court found that respondents have an extremely strong interest in protecting the subpoenaed information. However, even in cases where a precedent for protecting the privacy of psychological test materials and procedures has been acknowledged by the court, motions to protect this information have been denied. In *Florida Department of Transportation v. Piccolo* (2007), the defendant requested that the trial court require plaintiff’s counsel to return to the examining neuropsychologist a videotape of the neuropsychological evaluation. The neuropsychologist (G. Larrabee, Ph.D.) testified that he would not perform the examination unless the court required that the tape and all copies be returned to him at the close of litigation. Dr. Larrabee explained that should a copy of an examination remain with an attorney after the completion of litigation, it could be used to prepare other clients to take such examinations, thereby compromising future examinations. Although the appellate court recognized the psychological profession’s legitimate interest in preserving the security of test materials, and even cited *Detroit Edison Co. v. NLRB.*, it, nevertheless, concluded that *it had not been demonstrated* that not safeguarding the videotape, “departed from an established principle of law” (p. 776). Therefore, its protection was denied. In making this ruling the court did recognize that the neuropsychologist had, “well-founded reasons for insisting on the return of the videotape after the litigation had been concluded” (p. 776). The case was made by counsel representing Florida Department of Transportation that denying their request to return the videotape to the neuropsychologist would make it, “impossible for the agency to obtain the services of a clinical neuropsychologist” (p. 776). The motion was denied, and had the neuropsychologist proceeded with the case the psychological material would have been compromised. So, even while acknowledging the legitimacy of the psychological profession’s position on the privacy of tests, the appellate judge dissented, basing his ruling on the premise that the Florida Department of Transportation could arrange for the plaintiff to be examined by a, “professional from a different discipline” (p. 776).

Another example of the uneven and inconsistent manner in which courts have dealt with test raw data and test

materials may be found in *Koch v. Koch* (2011). Proponents of recording custody evaluations argued that providing the trier of fact (i.e., the judge) with the actual, unprocessed statements of the interviewees would allow the trier to make better assessment of the expert’s conclusions¹⁰. There were, however, several flaws with that argument. First, as already pointed out, the goal of a custody or parenting plan assessment is to obtain the independent recommendation of an expert. It is the job of the expert to give a professional assessment of the test raw data collected during the assessment. The resulting report is not merely a compilation of test raw data, but an informed synthesis of information offered to the court by a trained professional.

Asking the judge to review the underlying test raw data on which the expert formed a conclusion is really asking the judge to assume the role of not only an evaluator, but also an expertly trained evaluator, whose training, supervision, and experience have eclipsed “basic” competencies in psychological assessment (SPA, 2006). Meaning, not only an evaluator who has been trained in the basics, but an evaluator who is competent in both forensics and custody/parenting plan assessments. While a court can be, and often is appropriately asked to assess an expert’s opinion, and either reject that opinion or perhaps give greater weight to the opinion of another expert, *we would argue that the court should not do so based on an assessment of the expert’s test raw data or test materials*. Instead, the proper assessment of the expert should be based on traditional, and well-established, procedures, such as the deposition and cross examination of the expert as well as what standards exist for the use and dissemination of these materials, for example, *Daubert v. Merrill Dow Chemical* (1993) *General Electric Co. v. Joiner* (1997), and *Kuhmo Tire Company v. Carmichael* (1999). With a few exceptions, an administrative law judge, as a layperson, is generally not qualified to interpret test raw data or test materials in medical records (see for example *Florida Administrative Code* in Appendix I).

Regardless of jurisdiction, courts may be conflicted on these matters, especially if attorneys are encouraged, misled, or spurred on by uninformed professionals and compromised evaluators. One solution is a protective order for test raw data, test materials, and limitations on audio as well as videotaped materials. While there are a number of examples (*Manso-Pizarro v. Secretary of Health & Human Servs.*, 1996; *Taylor v. Erna and Godsmack*, 2009); *Bayless v. United States* (2015) supplies a reasonable example of the content of a protective order that would achieve these ends.

1. Upon receipt of the responsive materials from Dr. Didriksen, the United States will assign an identification number to the materials and will mark/stamp each document “Confidential” (hereinafter referred to as “Confidential Materials”).
2. These Confidential Materials may be used only for purposes of this litigation. Such materials shall not be used

¹⁰See the comments to the Family Practice Committee Final Report to the New Jersey Supreme Court (January 20, 2011), available at <https://www.njcourts.gov/supreme-court-committee-reports/family-practice-committee> or see: <https://cite.case.law/nj-super/424/542/>

for any other purpose, including, without limitation, disclosure to the public or media, use for any business or commercial purpose, or use in any other litigation or proceeding. The foregoing shall not apply to discovery material that properly is or becomes part of the public record.

3. These Confidential Materials may not be disseminated, disclosed, summarized, described, or otherwise communicated or made available in whole or in part to any person except the following “Authorized Persons”:
 - A. Counsel for the parties, and the paralegals, secretaries, employees, and service vendors of such counsel (including outside copying services and outside litigation support services) who are assisting in the preparation and trial of this action;
 - B. Any person indicated on the face of a document to be the author, addressee, or an actual or intended recipient of the document. (p. 4)

A proposed answer

At the core of defending the integrity of psychological assessment practices lies the sanctity of test raw data and protecting test materials, which speak to preserving the “quantitative representation” of the client/patient encapsulated in the test raw data and, importantly, adhering to copyrights and user agreements. So, what is “The Answer?”

To begin with, it is important, especially in this day of the internet, and given the ease with which test materials can be inadvertently made public, that lawmakers, licensing boards, attorneys, judges, and so forth should be made aware of the needed limitations on access to test materials and the correct procedures to release test raw data. For example, many legal systems now have online hearing and trial public records.¹¹ In legal cases it is quite common and appropriate for psychologists on either side of the case to share test raw data. It may be viewed as a professional standard of care, or at least a courtesy or well-mannered formality. The purpose of sharing test raw data is not, however, intended to be an “I gotcha” kind of legal dodge by uninformed professionals who do not know the standards, or, by compromised evaluators who do not follow the code of conduct in their discipline¹². Instead, the purpose is to ensure that test results can be scientifically replicated. Occasional scoring or other errors may have bearing on the interpretation of test raw data. In those cases, the sharing of test raw data helps to identify such errors, which may lead to a respectful collegial discussion. This also assumes that the individual who either performs the assessment or receives the test raw data actually has sufficient skills to understand how to reconstruct and interpret the findings from the test and/or assessment.

Licensing boards ideally ensure that those who do receive a license to practice understand the limits of their competency and have met at least minimum standards for practice.

Simply having been in practice for 30 years does not make an individual qualified to interpret psychological test raw data or appreciate the conventions involved with test materials. If you do something wrong for 30 years, it is still wrong. Unfortunately, those who have all the requisites, as well as appropriate letters behind their names, are not always competent either. Still, at least those who have been vetted through a licensing board that has appropriate standards, as well as perhaps a board certification process, have had their credentials and/or work product reviewed for competence. In the field of psychology, board certification in various specialties is accomplished through the American Board of Professional Psychology (ABPP) or the American Board of Professional Neuropsychology (ABN). Both Boards are recognized by the APA through the Commission for the Recognition of Specialties and Subsidiaries in Professional Psychology (CRSSPP).¹³ This statement does not imply that those who are board certified may be more competent than those who are not board certified, but if an individual has board certification this at least does demonstrate that an entity has taken a critical look at their work. In short, evaluators who have psychological assessment in their scope of practice need to keep their house in order. Therefore, we need to call these matters out in the way that ethics codes intend (e.g. American Counseling Association [ACA], 2014; APA, 2017), make use of the complaint process, and if need be, to clean house. But that can only be done if the lines are drawn clearly enough by guidelines and/or standards that cut across professions and specialties, by laws, and perhaps by other publications that may serve to inform the profession and the legal system.

The “weaponization” of requests for test raw data and test materials may be removed by simply clarifying language in these ethics codes, stating that the test raw data cannot be given to those who are unable to demonstrate competencies commensurate with assessments conducted, and that test materials are not to be turned over except with rare exceptions (NAN, 2000, 2003). The default position may be that the test raw data may not be given to non-psychologists, despite aspirational statements made by interdisciplinary associations and societies (SPA, 2006; Watson & Sheperis, 2010). To ensure the veracity of the test raw data, and the scientific integrity of the process for purposes of meeting the Daubert Standard (*Daubert v. Merrill Dow Chemical*, 1993), the best practice we recommend is for an attorney or judge to have a qualified evaluator receive test raw data, and then the evaluator receiving the information is bound to ensure that it is treated properly and ethically.

However, some attorneys not competent to interpret or appropriately use test raw data and test materials may seek to have the materials sent to them directly, rather than to an evaluator. The risk here is that the materials will be misused or abused by this release, or even worse used to further fraudulent activity, like coaching clients in how to respond to testing. With such attorneys the expressed legitimate need for materials to further an informed response to findings or

¹¹Montana Courts: <https://courts.mt.gov/Courts/portals>

United States Courts: <https://pacer.uscourts.gov/>

¹²See, for example, American Counseling Association (2014) and American Psychological Association (2017).

¹³<https://www.apa.org/ed/graduate/specialize/application-process?tab=3>

to engage in effective cross-examination is a ploy that threatens the integrity of both the psychological and legal enterprises. Attorneys who are not competent to interpret test raw data and materials may be breaking laws and disrupting user agreements. Unless competence can be demonstrated, attorneys should be required to show that they will engage with competent evaluators in their use of these materials or be held accountable through court sanctions or professional discipline for the acts and consequences of their misuse of these materials.

Ethical evaluators caught in these circumstances are likely to feel isolated due to the complexity of these legal and ethical issues. We suggest broadly reaching out to colleagues and, for example, to the APA or state, provincial, or territorial psychological associations, to other more specialized associations, or to divisions within APA as well as consulting federal and state laws, and organizational risk management resources. Evaluators must also understand legal arguments offered and be able to articulate the limitations imposed on access based on state and federal laws, as well as professional rules and guidelines. Ultimately, what matters is protecting the public by safeguarding the integrity of the science of psychological assessment, and even further the robustness of the adjudicative process by resolution of disputes on their merits. Otherwise, not just the integrity of tests materials and raw data are put at risk, but also public trust in science and in the larger dispute resolution process.

Stepwise solutions

We are well aware, actually personally aware of the challenges spoken to in this paper: the angst, the conundrums, and the need to reach out to trusted colleagues and other professionals when involved with such cases. These situations may be very trying for evaluators making an effort to conduct themselves in an ethically, legally, and scientifically responsible fashion. We propose a series of considerations that may bridge the gaps identified, and provide suggestions for manageable ethical, legal, and scientific practice. Further, we make an effort to do so in a reasonable fashion, and when matters become unreasonable, we argue what steps should be taken to make that reality evident.

1. In forensic cases, before any consents are signed and motions have even been made for an evaluator's involvement, we encourage evaluators to take a proactive approach to the known conditions or requests for involvement by attorneys and judges. When an evaluator is appointed, or selected to conduct an assessment, that evaluator should request that the designation or order clearly states that test raw data will only be released to professionals who are qualified to review them. Further, if it is released, such a release should be done under a protective order that has guardrails around who has access to it, how long the test raw data are relevant, and when, or if, they will be destroyed or placed under seal once the case has been resolved with

restrictions on their use outside the immediate litigation in which they were obtained.

2. Whether in an academic, clinical, forensic, or neuropsychological context, evaluators are encouraged to begin the management of test raw data and restrictions on test materials at the outset of the case. They are encouraged to make use of specific language in their consent for services that is consistent with state licensure and national guidance by professional organizations. It may be useful to cite specific state laws about test raw data when they exist and/or specific ethical principles to which an evaluator's practice particularly adheres. This document should also describe a results session that focuses less on the test raw data itself and more on the patterns of findings, diagnoses, and recommendations that will be more understandable to the client/patient and attorney. The handling of test raw data and test materials should be stipulated, including, the process involved should another qualified evaluator request test raw data, and what might happen should a court order its release.
3. We also encourage, as specified by ethics codes and professional guidance, a verbal, interactive, informed consent process before the assessment process begins. There should also be a discussion during which the consent for services and other documents are reviewed by the evaluator and the client/patient. This process should be documented in the final report with a paragraph that identifies the documents reviewed and affirms that a discussion took place to ensure that informed consent was achieved.
4. At the time of the results session, evaluators have the opportunity to speak to the role of test raw data, noting the expertise required to discuss it. They should address the more relevant and comprehensible findings and patterns with the client/patient regarding the assessment's outcomes.

The steps above largely address what happens before and immediately after the assessment has been completed. The next step deals with what happens afterward in response to requests for test raw data.

5. Any number of benign situations in an academic, clinical, forensic, or neuropsychological context may involve requests for test raw data for purposes of verification. For example, other evaluators may have a finding on the same instrument that does not align, or they may arrive at another interpretation. In this instance, the contact is collegial, and a request is made to scientifically check the test raw data against other findings. Evaluators should respond in a collegial and cooperative fashion once the credentials of a colleague have been established. This interaction can be viewed as one more validity check on the work conducted.
6. Professionals may begin with the expectation that the other side—the other evaluator, the other professionals may be reasonable in making requests. Kaufmann advises (2009), "Agree to release test materials and raw data to the opposing psychologist expert." (p. 1141).

Bearing in mind the discussion above, the focus here becomes twofold (Kaufmann, 2009):

Do not raise concerns about the opposing expert before having grounds to do so.
And:

Motion practice to protect test materials may require an attorney. (p. 1142). Thus, as to the first point, we have spoken to collegial exchanges. On the other hand, there are grounds for concern when an opposing evaluator is unable to demonstrate adequate competence. Has the other evaluator provided their curriculum vitae and a list of their graduate training, supervisors, experiences? Moreover, if necessary, is the other evaluator able to demonstrate advanced training in a specialization that establishes their credentials to practice the particular type of psychological assessment involved in the case? If they have provided these materials and demonstrated their expertise, then it would seem reasonable to provide test raw data directly to them. However, if the other expert has not provided these materials, or has not provided adequate credentials, then it is time to begin working with an attorney and engaging in “motion practices” as Kaufmann (2009) has suggested.

The question is, are you, as an evaluator, working with an attorney in a reasonable and prudent fashion? Kaufmann (2009) suggested stipulations and noted that the discovery process has guard rails citing: “Federal Rule of Civil Procedure (FED. R. CIV. PRO.) 26 and Federal Rules of Evidence (FED. R. EVID.) 702, 703, and 705” (p. 1143). We encourage the interested reader to review not only Kaufmann’s further comments closely, but also Morels’ (2009), since processes may include subpoenas, as well as other such motion practices, and these references may be helpful.

7. By the extension of the reasonable hypothesis notion above offered by Kaufmann, test raw data and test materials may be protected through joint motion practices given requests that come up in discovery regarding copywritten and/or sensitive materials. This is where a protective order comes into play in forensic matters such as the one from Bayless v. United States (2015). It protects the client/patient involved from exposing intimate details that may be contained in the test raw data or other sensitive materials. It also serves to protect test security due to the quality of responses provided in the test raw data and test materials. If the other side is reasonable, and their expert sound, a protective order should be readily agreed to when such requests are made. There may well be back and forth motion processes, including subpoenas, that will put demands on evaluators regarding protective orders. In addressing these demands the evaluator should apprise attorneys and the courts of fundamental articles, learned treatises such as those by Kaufmann (2009) and Morel (2009), perhaps this paper, and relevant case law.

Psychologists and other duly qualified professionals need to be aware of such conventions with regard to test raw data and test materials, regardless of what has been stated in our ethics code or what test vendors

describe in their user agreements. A reasonable solution to discovery, when a protective order and other related motion practices are necessary and useful, can be negotiated, with these caveats and within the more general context of competent use. More general, practical, matters include the following:

- A. Courts are encouraged to use protective orders so that evaluators are protected, the release of information is managed, and the attorneys get what they need.
- B. Protective orders may not prevent lawyers of questionable ethical character from using test raw data and test materials in future cases, and specifically to engage in such problematic practices as preparing future clients/patients for testing in ways that subvert the assessment process. Protective orders should have document destruction dates, or expiration dates for the use of test raw data or test materials should be included in protective orders. Orders should also expressly preclude the use of the test raw data and materials outside the context of the immediate litigation in which they have been obtained.
- C. The points above address realities, but courts must also deal with such issues as an attorney’s expressed need for the appropriate information to conduct effective cross-examination. Morel cited Michigan laws on protective orders as another example (2009): “For instance, the State of Michigan issued court rules MCR 2.302(8) regarding Protective Orders, which states ‘a trade secret or other confidential research, development, or commercial information not be disclosed or be disclosed only in a designated way,’” (p. 641). He goes on to cite that Michigan (2009): “provides for an award of expenses incurred if a motion for a protective order is denied in whole or in part.” (p. 641) Thus, it would appear that Michigan recognizes, and we assert, that protection against undermining the integrity of the foundation of the assessment through motion practices process can be inadequate.

Some compromised evaluators will, and have, manipulated the assessment environment too by creating a stressful and/or non-standardized assessment situation. We have heard of, and know of, uninformed professionals who have: Placed a client/patient in testing environments such as a narrow hallway near a bathroom to complete inventories and/or tests, have seated a client/patient in the lobby with several other client/patients with disquieting music, or have used other such stressful non-standardized administration circumstances. Some uninformed professionals and compromised evaluators will simply leave measures such as the MMPI-2, or the like, at a jail for the defendant to complete. In such cases, it has been reported by jail staff that the response profile was a consensus piece created by those in the defendant’s cellblock. Manipulations also include more subtle

violations of standardized procedures, such as an evaluator sitting in such close proximity to a client/patient that they can see the answers in order to entice better performance in an injury case. All of these are real-world examples from our own experiences, with cases that we have worked on and/or with.

Observe the following example. A client/patient seeking an evaluation to return to flying consults with an attorney, who reveals the tests to be taken and states that they are “prepping” the client/patient for the exam. The client/patient studies the materials and the answers. The client/patient then goes to the pilot examination with the Federal Aviation Administration, which involves psychological and neuropsychological assessment. As the client/patient has studied the material and answers, they pass the examination. However, even though the client/patient passes, they still have a drug and alcohol problem. The client/patient continues to fly and, one day after drinking prior to flying, crashes the airplane, killing the client/patient and others. This is not a far-fetched example.

- D. The often-proposed solution to some of these situations is for the procedure to be videotaped. However, this video recording will, more than likely, have test raw data, evaluation procedures, and copywritten materials evident in the assessment process. Both the American Board of Professional Neuropsychology (ABN) and NAN have made clear statements against such practices (Axelrod et al., 2000; Lewandowski et al., 2016). As such, if this remedy is pressed, the video recording should be proactively delineated under a protective order limiting either the scope of the recording to aspects of the assessment that do not involve test raw data or protocol queries. Another possibility is that access should be limited to a duly credentialed evaluator, and specify that the recording be returned to the original evaluator and/or destroyed. Again, this path is fraught (Morel, 2009), and we recommend following the advisories of ABN and NAN (Axelrod et al., 2000; Lewandowski et al., 2016). Further, we fully agree that “secretively recording” such sessions is an unacceptable practice (Bush, et al., 2009).
- E. To be clear, the concerns here are not only the misuse of test raw data and test materials, and the corruption of the psychological assessment process, but confusing and/or misleading both the court and the jury about the scientific integrity of the material. Kaufmann (2009) had anticipated such contingencies and provided cogent guidance that is worth revisiting here on the use of protective orders:

Although these orders are of unknown effectiveness, they may be the only means by which a psychologist may raise the issue of test security with the court. Negotiations among the parties regarding the content, scope, monitoring, and enforcement of the order may provide an avenue for the court to understand the true risks of test disclosure and to fully appreciate the fallacy of such protective

directives as applied to test materials. Some judges may hear the ensuing discussion and decide they would like to review the materials in question “off the record” in chambers. Psychologists should seize such opportunities to educate the court about psychological tests and the importance of test security, as the Court conducts an *in camera* review (p. 1147)

8. The discussion thus far suggests potential interactions that involve a professional, even-handed process for both the client/patient evaluated and the evaluator who has conducted the assessment. It would be ideal if such a proactive, above board, and collegial-professional exchange spoke to the majority of situations in which test raw data is disclosed. Unfortunately, as we have discussed, such amicable professional interactions are not always possible. The literature (Bush & Morgan, 2017; Kaufmann, 2009; Morel, 2009), our collective experience, and discussions we have had with colleagues, indicate that there are a number of exceptions to this kind of collegial scientific interaction. To address these more adversarial situations and problems that may arise, examples and suggested processes will be offered, especially in light of the fine work by Kaufmann, and separately Morel, in 2009. Some of their suggestions will be furthered here in the next several steps meant to address aggressive and/or improper demands for test raw data and/or test materials.

We begin with the question: *What are evaluators to make of another professional who does not have the appropriate training, supervision, or experience to request test raw data?* We believe that professionals are certainly entitled to ask for test raw data. But, as we have stated earlier, the onus falls on evaluators to address and/or describe the level of competence necessary within a particular assessment context. Further, to define a reasonable release and what is an unreasonable request for release and/or demand. Different basic clinical contexts for such requests may involve academic, intellectual, or personality assessment. In such instances, the guidance supplied by the SPA (2006) would, more than likely, be sufficient. However, what of the complexities involved with neuropsychological and forensic assessment, or with custody/parenting plan assessments? Each of these processes requires years of practice beyond graduate education (Ackerman, 2010; Division 40 of the American Psychological Association, 1989; Heilbrun, 1992). Depending on the context of the assessment, very different requirements apply when evaluating the adequacy of credentials and the requestors’, evaluators’, or professionals’ competence. Again, the onus falls on evaluators in these situations to educate the parties regarding what constitutes necessary credentials and competence in the particular area of assessment.

Though there are a host of different possibilities, these efforts may include collegial exchanges with experts in different disciplines, administrators in health-care organizations, attorneys, and courts. Again, to be clear, with rare exception (Axelrod, 2014; Bush, 2018) there is a distinct difference between test raw data, test

materials, and other parts of, for example, a forensic record, which Kaufmann (2009) has articulated:

The psychologist nondisclosure privilege only applies to a narrow range of test materials and raw data generated on those materials, which does not include many paper and electronic records. Patient materials that are subject to release under discovery include, but are not limited to, schedules, telephone messages, e-mails, calendars, logs, invoices, billing information, insurance forms, letters, history forms, generic symptom checklists, and reports. (p. 1141)

As described earlier, some professionals do not recognize the conventions of collegiality or of those addressing test raw data or test material. Thus, we have suggested brackets on such processes that should be established at the outset of the case, especially in forensic cases. The earlier the better, and ideally before discovery. It is here, at the ground level, where the assessment expert tends to win these battles over the release of test raw data and test materials. While the appellate process may hold out the promise of systemic protection, it is important to appreciate for example that there are fifty state appellate jurisdictions as well as the federal jurisdiction in the United States, and historically the protection of psychological test raw data and materials has not been a subject of frequent or consistent consideration by appellate courts.

9. Despite the array of possible solutions discussed above, one of the fundamental concerns that initiated this article was that there remain those who are simply bad actors regardless of the lengths to which one might go in offering reasonable and professional solutions. Evaluators should, accordingly, learn to recognize how those attorneys, uninformed professionals, and compromised evaluators may use psychological assessments in a way that devalues the legitimacy of the process. At such times, it tends to become progressively apparent that there is no negotiating with such professionals to reach an amicable solution. Also, evaluators should be aware that at times these professionals may also be peripheral to the process of the psychological assessment, and yet still be involved in an advisory or consultant capacity. In turn, both ethical and well-meaning attorneys and evaluators should be prepared for the various maneuvers discussed above in cases where psychological assessments are challenged.

There are times when unscrupulous activities may begin before the assessment session has even taken place, with coaching of the claimant, defendant, client/patient involved. Coaching, as one illustration, can come from any number of different angles and involve any one of the professionals described earlier, and there may be other types of professionals involved. Attorneys may legitimately prepare and instruct their client/patient to: 'be honest, to be themselves, and to expect many questions.' However illegitimate, or at the very least questionable practices, involve professionals describing test content, how to create a certain impression or profiles (Spengler et al., 2020), and even how to answer questions or deny matters central to the

case, as in our impaired pilot example. There are ways to deal with such maneuvers. A form that asks about coaching may be presented beforehand. Performance validity measures as well as symptom validity tests may also be used (Harrison et al., 2021; Larrabee, 2012b; Ord et al., 2021).

Attorneys, for their part, are charged with the zealous advocacy of their client/patient's case, but there are reasonable limits here as well. For instance, a subpoena duces tecum should not be issued when there have been no attempts to enter a legitimate discovery process and/or engage in motion practices. While Morel (2009) spoke to discovery, Kaufmann (2009) has addressed unduly burdensome discovery demands, and in one of his cases he writes: "I received a 'Notice of Deposition Duces Tecum' from opposing counsel, demanding that I produce 31 items." (p. 1152). He (2009) goes on to list some of those 31 demands:

"2 ... your entire file, including but not limited to ..."

"11. *Any and all testing materials* used in your evaluation ..."¹⁴

"14. *Any and all scoring manuals* used in your evaluation." (p. 1152)

Unduly burdensome discovery demands, such as demands for all articles, books, and treatises relied upon by the evaluator as part of a deposition process may be frequented upon the examining psychologist as well. This observation is based on the cumulative experience of these authors, our psychologist colleagues, and the illustration supplied by Kaufmann above.

There are matters of duplicity, lack of good faith, or at times outright ignorance on the part of some attorneys. Some are simply unaware of the practical matters involved with psychological assessment, others may have been misinformed by uninformed professionals or compromised evaluators, and still others may knowingly engage in unethical and unprofessional practices.

Discussion, and areas of further study

Have we come to the point where public safety and confidence are threatened to the degree that more uniform language is necessary at federal and state levels? Language, that outlines base levels of competence, such as, for example, the aforementioned SPA's Standards (2006). Further, addressing evaluator competence and the interactions of, and permutations involved with, psychometric tests would ideally be addressed in a paper expressly for that purpose. While test vendors do have practice levels, this matter requires attention and perhaps being mindful of considerations such as those herein, as well as the need for finer distinctions to be made across assessment practices. Specializations provide one example, which may also be represented by the boarding processes mentioned above (ABN, ABPP), and may serve in a manner that protects the public. Even so, in

¹⁴Yes, Kaufmann did bold and italicize these excerpts and those below.

forensic environments the courts and judges have wide discretion over whether to allow access to test raw data or test materials. As stated earlier the debates involved with motion practice implicitly favors attorneys seeking release because arguments about the need for “evidentiary ingredients,” like test raw data and test materials, will regularly be described as necessary to conduct informed cross-examinations. This is familiar territory to judges, and it is consistent with their goal of ensuring procedural fairness through the application of concepts like “due process,” “accessibility,” and “transparency.” Additionally, judges, especially at the trial level, focus on the case in front of them rather than the larger concerns of the scientific enterprise and its integrity. Thus, the question becomes how to even out the scales, in favor of scientific integrity, literally the evidence presented to a court. The quality of the evidence should be considered in proportion, and balanced with, procedural fairness.

The matters in the paragraph above are only a handful of threats to the integrity of psychological assessment. We have been purposively broad in our treatment of the topic since not just neuropsychological assessment is under threat, but psychological assessment as a whole is at risk because incursions into any one level of practice tends to imperil the entire discipline. Our emphasis has been to maintain a through line that addresses broad practice matters that develop into to ever more specific concerns about the integrity of assessment practice at more advanced levels. To that end, this path had several crossroads with a number of different matters related to these threats that we have referred to in this article. These are important in their own right and further study is recommended.

The first matter is to assess the degree and magnitude of potential incursions into psychological assessment by way of matters such as: lowering thresholds for practice competence, federal or state laws that are either silent on test raw data and materials, or laws, practices, that grant access in ways that either potentially harm the public or violate copyright laws. We suggest studies that provide the field with a report on the state of current affairs.

Second, we have discussed what constitutes test raw data and test materials, but sometimes they are one-in-the-same. The term “hybrid test raw data/materials” was suggested, and these require special attention and management. An entire paper may well be devoted to the topic, due to the consequent need to address how these hybrid test raw data/materials are handled by ethics standards and addressed through practice guidelines given their unique qualities.

Third, jurisdictional matters require both attention and recognition in order to come to some reconciliation. It is envisioned that such a review piece, or for that matter separate pieces, would attend to international standards, and to provincial/state criteria here in North America, and across different disciplines as well. Regarding the latter, for example, the Standards that the SPA (2006) has put forward provided a reasonable start for interdisciplinary standards. But, what of practice matters beyond these basics? Fundamentally, how is psychological assessment

practice vetted and protected at a disciplinary/jurisdictional level?

Fourth, there is a need to elaborate the variety of disciplines that practice psychological assessment such as clinical, counseling and school psychology. But also, counselors, psychiatrists, social workers, and perhaps others. To what lengths do these disciplines go to protect the practice, the test raw data and test materials, and thereby the public? Similarly, how do these concerns apply to academic technicians and psychometricians?

Fifth, how well do psychometric properties of tests align with levels of practice, and the protected generation of complex test raw data and test materials? Test vendors supply their own qualifications levels, but is this sufficient and do these distinctions adequately address the integrity needed for psychological assessment’s future?

Sixth, it may be readily imagined how the studies above may lend themselves to empirical and/or quantitative descriptions of the matters discussed across this paper, and such studies may well be very useful for addressing matters in court, policy matters and scope of practice.

Seventh, it is recognized that malingering has received a good deal of attention in the literature, and while we have touched on coaching to some degree, work is needed in this area. Such work could follow the recent publication by Spengler and colleagues (2020) on attorneys coaching their clients on the MMPI-2.

Eighth, while Kaufmann and Morel described the state of case law in 2009, at this writing that was fourteen years ago. It would be useful to have a study that compiles more recent case law in a fashion that addresses threats to the integrity of psychological assessment. Such a review may include how test raw data and test materials are handled. Or, the issue of transgressions may be addressed, via known board complaints and case law involving the conduct of attorneys, evaluators, and other professionals. Thus, how do boards or courts manage the matters involved with attorneys who have overstepped, uninformed professionals, and compromised evaluators? Also, case law studies should include when test vendors have filed suit to protect their proprietary interests.

Setting aside these prospective studies, the matter remains that some laws, end-user agreements, and ethical standards are not enforced. The Rule of Law¹⁵ can be considered when certain conventions in law repeatedly supersede those that protect test raw data and test materials in court rulings. Boards of those who practice psychological assessment can take steps to prevent such disclosure, and laws can be written to address it. But attorneys can also lend a hand, and we suggest procedures to ensure methodological integrity when a client/patient is prepared for a psychological assessment by attorneys, including a list of “dos and don’ts,” as well as the continued use of embedded measures employed by evaluators that will aide in identifying any such wrong doing (Larrabee et al., 2019; Meyers et al., 2022). Mindful of the

¹⁵<https://www.uscourts.gov/educational-resources/educational-activities/overview-rule-law>

potential studies suggested above and their outcomes, productive time may be spent developing ways of demonstrating instances of misuse and misconduct that rise to the level of undermining both assessment and legal processes. Such procedures could have a deterrent or even restitutive effect on future cases and may exceed what can be accomplished with board complaints, formal and informal appeals, as well as lawsuits.

Licensing boards, federal, and state regulations, may further put in place safeguards to make certain that public safety and confidence may be enjoyed at a basic level despite pressures for client/patient access to test raw data and test materials that requires specialized graduate education to appreciate fully. The burden should also be on attorneys who want direct access to test raw data and test materials to demonstrate appropriate and legitimate competence in the practiced use of these materials. It is suggested that attorneys ought to be able to demonstrate some proficiency in the use of test raw data and test materials in proceedings. In 2009 Morel suggested two tables worth of guidelines (pp. 642–643), and to our knowledge little national progress has been made to advance these recommendations. Perhaps these disciplines have come to a point that a joint task force of the American Bar Association, APA, NAN, and SPA could develop such education.

Recognizing that there are natural limitations on written works such as this, we are aware that there is much in this paper that could be discussed further, and even so it cannot be underscored enough that psychological assessments serve a critical, even pivotal role in life-or-death decisions in people's lives that are reliant on its scientific integrity. Capital murder cases, for example, may hinge on intellectual capabilities and culpability (*Atkins v. Virginia*, 2002; Wood, et al., 2014). Even in civil cases, a parent may or may not be able to have their children in their home based on findings from psychological assessments. An insured may have been so badly injured that the insurance company will need to financially address the realities of their injuries per findings from a neuropsychological assessment. For these reasons, and others, maintaining the integrity of psychological assessment is a matter of public safety and there needs to be confidence in the most basic elements of the assessment process, its test raw data and test materials.

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Appendix A: Q-global® Subscription and License Agreement

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Appendix B: National Board of Forensic Evaluators (NBFE) adopted position

As described earlier, it is relevant to the discussion about licensure and specialization that this particular organization has adopted the following position.

The National Board of Forensic Evaluators (NBFE) adopts the position that appropriately trained licensed mental health counselors may administer and interpret psychological tests, a viewpoint consistent with various state licensure boards including Florida, the state the NBFE is headquartered in, which declared that licensed mental health counselors, clinical social workers, and marriage and family therapists “may administer and interpret such tests as long as they have received the appropriate training, and thus, are qualified to perform such procedures” (Susan J. Foster, personal communication, February 4, 2000).

To be a “Certified Forensic Mental Health Evaluator” per NBFE, among other things (2023):

Laws, board rules, and other regulations vary state-by-state in the United States as well as from nation to nation. Ultimately, it is the

responsibility of the individual mental health professional to verify that the ability to diagnose and treat, conduct particular types of forensic mental health evaluations, and/or administer and interpret specific tests and assessment tools is within the scope of practice of his or her license in his or her state.

Further, the marker for conducting forensic work includes (NBFE, 2023): “...a minimum of forty (40) hours of forensic experience and/or training.”

Appendix C: Vineland-3 normative samples

Demographic characteristics of the normative samples

The Vineland-3 norm samples were constructed to be representative of the U.S. population in the age range covered by each form, according to the most recent data available from the U.S. Census Bureau's American Community Survey 2014

For examinees 21 and older, the individual's own education level was used. *Education level was coded as follows:*¹⁶

- 1 = 0-12 years of school, no diploma
- 2 = high school diploma or equivalent
- 3 = some college or technical school, associate's degree
- 4 = bachelor's degree or more ...

Appendix D: NCS Pearson, Inc., and University of Minnesota, readout from an MMPI-2 protocol conducted in 2021

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Appendix F: Daubert Standard's basic elements

The Daubert Standard describes five basic criteria, which have been winnowed down for the purposes of brevity (Rohling, et al., 2015):

1. Is the method well accepted in the scientific community?
2. Has the method been peer reviewed?
3. Has there been a method for controlling the method's use?
4. Does it have an error rate?
5. Has the method been evaluated for scientific accuracy?

Appendix G: Pearson assessments qualification's policy¹⁷

Pearson is committed to maintaining professional standards in testing as presented in the *Standards for Educational and Psychological Testing* published by the American Educational Research Association (AERA), American Psychological Association (APA), and the National Council on Measurement in Education (NCME). A central principle of professional test use is that individuals should use only those tests for which they have the appropriate training and expertise. Pearson supports this principle by stating qualifications for the use of particular tests, and selling tests to individuals who provide credentials that meet those

¹⁶Ibid, directly preceding and the ratings below.

¹⁷See: <https://www.pearsonassessments.com/professional-assessments/ordering/how-to-order/qualifications/qualifications-policy.html#:~:text=A%20doctorate%20degree%20in%20psychology,intended%20use%20of%20the%20assessment.&text=Licensure%20or%20certification%20to%20practice,field%20related%20to%20the%20purchase.>

qualifications. The policies that Pearson uses to comply with professional testing practices are described below.

Appendix H: Montana Board of Psychologists Consumer Notice (retrieved 11.1.20): consumer notice regarding psychological assessments

Psychologists licensed by the Montana Board of Psychologists may wish to educate or inform the public with respect to what makes the psychologist competent to conduct, interpret, and analyze a psychological assessment. This may be especially true in light of legislative changes that allow certain licensees of other professions to hold themselves out as being qualified to engage in similar conduct. While licensed psychologists are not prohibited from providing the public any consumer notice that is accurate and appropriate, the following statement, when taken in its entirety, has been expressly approved by the Montana Board of Psychologists:

The Psychological Assessment you are about to review was prepared by a psychologist duly licensed in Montana whose qualifications were established by meeting all of the following requirements:

1. A doctorate degree in psychology from an accredited institution with curriculum standards that meet the approval of the American Psychological Association or similar curriculum guidelines established by the Montana Board of Psychologists;
2. Two years of supervised experience in the field of psychology under the direction of qualified professionals (including a year of residency training at the educational institution where the doctoral degree was awarded);
3. Examples of psychological work for analytical review by the Montana Board of Psychologists;
4. A detailed and comprehensive application that must meet the approval of the Montana Board of Psychologists;
5. A nationally standardized and administered written examination specific to competency in psychological assessments; and
6. A rigorous oral examination administered by the Montana Board of Psychologists, also focusing on the applicant's competency in psychological assessments.

Consumer Note: In Montana, only licensed psychologists are required in this way to demonstrate their competence to conduct, interpret, and analyze psychological assessments. Other professionals describing their work as "psychological assessments" are not subject to similar requirements to establish their qualifications.

Appendix I: Administrative rules of Montana, practice of psychology (§24.189.2305 (9)¹⁸) and professional responsibility (§24.189.2309 (4)(f)¹⁹)

ARM § 24.189.2305 (9)

Psychologists shall provide judges, attorneys, and other appropriate parties with access to the results of the evaluation, but make reasonable efforts to avoid the release of notes, test booklets, structured interview protocols, and raw test data to persons untrained in their interpretation. If legally required to release such information to untrained persons, psychologists shall first offer alternative steps such as providing the information in the form of a report, or releasing the information to another psychologist who is qualified in the interpretation of the data and who will discuss or provide written interpretations of the data with the person(s) who are seeking the information.

ARM § 24.189.2309 (4)(f)

...shall refrain from releasing raw test results or raw data to persons, other than to clients as appropriate, who are not qualified to use such information.

Appendix J: Florida Administrative Code Section 64B19-18.004

Use of Test Instruments

1. The Board finds that the inappropriate use of test instruments is harmful to consumers. The Board finds further that a need exists to set out the minimum standard of professional practice maintained and required of psychologists who use test instruments in the psychologist's practice of psychology.
2. A psychologist who uses test instruments in the psychologist's practice of psychology:
 - a. Must consider whether research supports the underlying presumptions which govern the interpretive statements which would be made by the test instrument as a result of its completion by any service user;
 - b. Must be able to justify the selection of any particular test instrument for the particular service user who takes the test at the instruction of the psychologist;
 - c. Must integrate and reconcile the interpretive statements made by the test instrument based on group norms, with the psychologist's independent professional knowledge, evaluation, and assessment of the individual who takes the test;
 - d. Must specify in the test report the name of each person who assisted the psychologist in the administration of the test, and the role which that person played in the administration of the test.

A psychologist who uses test instruments may not release test data, such as test protocols, test questions, assessment-related notes, or written answer sheets, except (1) to a licensed psychologist or school psychologist licensed pursuant to Chapter 490, F.S., or Florida certified, or (2) after complying with the procedures set forth in Rule 64B19-19.005, F.A.C., and obtaining an order from a court or other tribunal of competent jurisdiction, or (3) when the release of the material is otherwise required by law. When raw test data is released pursuant to this paragraph, the psychologist shall certify to the service user or the service user's designee that all raw test data from those test instruments have been provided. Psychologists are expected to make all reasonable efforts to maintain the integrity of the test protocols, modalities and instruments when releasing information as provided herein.

In performing the functions listed at subsection (2) of this rule, the psychologist must meet with the test subject face-to-face in a clinical setting unless the psychologist has delegated the work to a psychological intern, psychological trainee or psychological resident in a doctoral psychology program approved by the American Psychological Association.

It shall be a violation of this rule for a psychologist to sign any evaluation or assessment unless the psychologist has had an active role in the evaluation or assessment of the subject as required by subsection (4) of this rule. A psychologist may not sign any evaluation or assessment that is signed by any other person unless the psychologist is signing as a supervisor, in conjunction with an evaluation or assessment performed by a psychological intern, psychological trainee or psychological resident, or as a member of a multidisciplinary diagnostic team.

"Test instruments" are standardized procedures which purport to objectively measure personal characteristics such as intelligence, personality, abilities, interests aptitudes, and neuropsychological functioning including evaluation of mental capacity to manage one's affairs and to participate in legal proceedings. Examples of such tests include intelligence tests, multiple aptitude batteries, tests of special aptitudes, achievement tests, and personality tests concerned with measures of emotional and motivational functioning, interpersonal behavior, interests, attitudes and other affective variables.

¹⁸<https://rules.mt.gov/gateway/RuleNo.asp?RN=24%2E189%2E2305>

¹⁹<https://rules.mt.gov/gateway/RuleNo.asp?RN=24%2E189%2E2309>